

Abstract

A frequency synthesiser according to the direct digital
5 synthesis method comprises a phase accumulator (1) for
the cyclical incrementation of a phase signal P by a
phase increment M present at the input (3) of the phase
accumulator (1), a memory unit (6) with a table of sine-
function values stored in its memory cells for the
10 determination of sine-function values corresponding to
phase values of the phase signal P, a digital-to-analogue
converter (11) for the conversion of time-discrete sine-
function values into a quasi-analogue sinusoidal time
function and an anti-aliasing low-pass filter (16) for
15 smoothing the quasi-analogue sinusoidal time function.
The frequency synthesiser according to the direct digital
synthesis method additionally contains an adder (19),
which is connected between the memory unit (6) and the
digital-to-analogue converter (11) and which superimposes
20 a non-periodic signal (NS) over the time-discrete sine-
function values.

(Fig. 4)